

THE
ANNUAL REPORT
ON THE
HEALTH

AND
SANITARY CONDITION
OF THE
URBAN DISTRICT OF BROMLEY
(KENT),

FOR THE YEAR 1897,

BY
ARTHUR F. G. CODD,

M.B., F.R.C.S., SAN: SCI: CERT:

MEDICAL OFFICER OF HEALTH.

BROMLEY, KENT:

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URBAN DISTRICT OF BROMLEY

(KENT).

Report of the Medical Officer of Health for the year 1897.

*To the Chairman and Members of the Urban District Council
of Bromley.*

March 21st, 1898.

GENTLEMEN,

I have the honour to present to you my Ninth Annual Report, relating to the year ending December 31st, 1897.

VITAL STATISTICS.

For the purposes of statistics, the population is always calculated for the middle of the year. At the last census, taken on April 6th, 1891, our population was 21,685, being an increase since the previous census of 6,532. On the supposition that the last intercensal period will be maintained, the population in the middle of 1897 may be approximately estimated at 25,756.

The District comprises 4,706 acres, having a population of 5.4 persons to the acre.

BIRTHS.

The births during the year were 596, of which 309 were males and 287 were females, giving a birth-rate of 23.1 per 1,000 compared with a rate of 29.7 for England and Wales and 27.7 for the outer ring of London.

The outer ring is that portion of the Metropolitan Police District which is outside the district of Registration London, and includes such districts as Croydon, Wimbledon, Richmond, Beckenham, Uxbridge, Harrow, Enfield and Walthamstow, many of which may be fairly compared—from a health point of view—with our own district.

Our birth-rate continues to decline in a very marked manner and is now unusually low. With an increasing population, it is a notable fact that the actual number of births is diminishing steadily year by year. This may be partly explained by the fact that ours is a residential locality, where large numbers of unmarried servants are employed.

MARRIAGES.

During the year there were registered 214 marriages, of which number—

132 took place in Churches.

28 „ Nonconformist Chapels and the
Roman Catholic Church.

54 „ the Superintendent Registrar's Office.

The marriage rate for Bromley was therefore 16.6. The rate for England and Wales for the year ending Sept. 30th, was 15.1.

DEATHS.

The number of Deaths registered in the district was 241. By adding 30 deaths of Bromley persons which occurred in our Union Infirmary, which is outside the district, and by deducting 7 which occurred in the Infectious Hospital (these not belonging to the district), we have a total of 264, of which 137 were males, and 127 females. Two deaths, one in the Cottage Hospital and one in the town, were of persons belonging to other districts, but they have been included in the above numbers to balance the number of Bromley persons who probably died out of their own district.

This is equal to a rate of 10.2 per 1,000. The rate for England and Wales was 17.4, and for the outer ring of London 13.2.

In the first quarter there were 72 deaths.

„	second	„	„	59	„
„	third	„	„	53	„
„	fourth	„	„	80	„

The excess of births over deaths was 332, being a natural increase in the population of 12.8 per 1,000.

The following table epitomises the ages at death—

Under 1 year	...	...	...	...	56
Over 1 year and under 5 years	...	...	...	...	27
„ 5 years	„	15	„	...	11
„ 15	„	25	„	...	7
„ 25	„	65	„	...	103
„ 65	„	...	...	...	60
					<hr/> 264

One inhabitant reached the age of 97 years.

Deaths under 5 years of age	...	83
„ over „ „	...	181
		<hr/>
		264

The proportion of deaths under one year of age to registered births (*i.e.* the infant mortality) was 93 per 1,000 compared with 155 per 1,000 for England and Wales.

Our death-rate last year was the lowest on record for the past 15 years, of which I have particulars.

A death-rate of 10.2 per 1,000 for a town of over 25,000 inhabitants is remarkably good, and will compare very favourably with nearly any town of the same size in England, but it must be remembered that in comparing the general death-rates of different localities, the density of population, the occupations and social conditions of the inhabitants have to be considered and correction must be made for the age and sex distribution.

DEATHS FROM ZYMOTIC DISEASES.

The deaths from all causes included :

From Diarrhœa	...	...	17
„ Whooping Cough	...	...	4
„ Diphtheria	...	...	5
„ Enteric Fever	...	...	1
„ Scarlet Fever	...	...	3
			<hr/>
			30

There were no deaths from Small Pox or Measles.

Thus 30 deaths were attributed to these principal zymotic diseases, being at the rate of 1.16 per 1,000 living, compared with a rate of 2.15 for England and Wales, and 2.13 for the outer ring of London.

I append the death-rates and the zymotic death-rates in Bromley since 1883, *i.e.* for the past 15 years.—

		Death Rate.		Zymotic Death Rate.
1883	...	13·4	...	2·4
1884	...	15·8	...	2·4
1885	...	13·0	...	1·3
1886	...	11·6	...	1·2
1887	...	15·0	...	2·7
1888	...	12·8	...	0·9
1889	...	11·7	...	1·2
1890	...	13·7	...	2·4
1891	...	13·3	...	1·0
1892	...	12·4	...	1·5
1893	...	13·6	...	1·5
1894	...	12·9	...	1·6
1895	...	11·0	...	1·0
1896	...	11·6	...	2·5
1897	...	10·2	...	1·1
Average ...		<hr/> 12·8 <hr/>	...	<hr/> 1·6 <hr/>

There were 36 deaths from Tuberculous Diseases of which 21 were due to Pulmonary Consumption.

There were 31 deaths from inflammatory diseases of the respiratory organs.

Cancer was the cause of 20 deaths.

There were 8 deaths from Epidemic Influenza.

Generally speaking the effects of sanitary improvements and precautionary measures are best indicated by a lower death rate from Infectious Diseases, Fever, Diarrhœa and Consumption, and, amongst children under 5 years of age, from all causes.

I therefore show these rates in Bromley during the last 5 years.

	1893	1894	1895	1896	1897
Infectious Diseases... ..	1·51	1·68	1·02	2·5	1·16
Fever	·00	·21	·08	·04	·03
Diarrhœa	·60	·42	·73	·39	·66
Consumption	·86	·75	·73	·91	·81
Children under 5 years of age					
from all causes ...	4·3	3·9	3·9	4·6	3·2

INFECTIOUS DISEASES.

Under the Infectious Diseases (Notification) Act 231 cases of the diseases to which this Act applies were reported during the year.

The following shows the number of cases reported yearly since this Act came into force.

	1890	1891	1892	1893	1894	1895	1896	1897
Scarlet Fever ...	21	33	74	128	52	40	60	192
Diphtheria ...	41	15	13	31	25	10	11	19
Erysipelas ...	4	11	18	31	22	19	20	14
Enteric Fever ...	2	2	3	8	20	6	9	3
Puerperal Fever	0	1	2	3	1	2	2	3
	<hr/> 68 <hr/>	<hr/> 62 <hr/>	<hr/> 110 <hr/>	<hr/> 201 <hr/>	<hr/> 120 <hr/>	<hr/> 77 <hr/>	<hr/> 102 <hr/>	<hr/> 231 <hr/>

Of the 231 cases 155 were removed to the Infectious Hospital and 12 to an isolated Ward in the Workhouse; 64 were treated in their own homes.

The 231 cases occurred in 164 houses.

In February owing to the epidemic of Scarlet Fever the accommodation in the Infectious Hospital failed, and it became necessary to make use for a time of an isolated ward in the Workhouse.

During times of epidemic disease the accommodation in the Fever Hospital is still inadequate to meet the demands of the Conjoined Districts, and it is to be hoped that this year the enlargement which for some time has been contemplated will be carried out.

During the year 313 patients were treated in the Hospital under the care of Dr. Shannon the Medical Superintendent. The return of admissions from the adjoining districts is also given as it shows the amount of infectious disease prevalent around Bromley.

From the Bromley Urban District, with a population of over 25,000—

Scarlet Fever	...	152
Diphtheria	...	3

From the Bromley Rural District, with a population of over 30,000—

Scarlet Fever	...	79
Diphtheria	...	10
Enteric Fever	...	12

From the Beckenham Urban District, with a population of over 23,000—

Scarlet Fever	...	50
Diphtheria	...	7

There were 12 deaths in the Hospital, 6 being from Scarlet Fever and 6 from Diphtheria.

SCARLET FEVER.

During the year the exceptionally large number of 192 cases of Scarlet Fever was reported. This was more than three times the average number since Notification was adopted

in 1889. Of these cases 152 were removed to the Infectious Hospital at Skym Corner, and 40 were isolated and nursed at home. The disease was of a mild form as shown by the small mortality, only three deaths being registered as due to Scarlet Fever. The general mortality as a rule averages about five per cent. The 192 cases occurred in 126 houses, and 7 of these houses had three or more cases in each: 49 were in children under 5 and 143 were in persons above that age. The numbers occurring in each month were:—January 42. February 37. March 14. April 10. May 4. June 7. July 4. August 4. September 4. October 44. November 14. December 8.

That this heavy visitation was special to this district may be seen by a comparison of the numbers admitted to the Infectious Hospital from the Bromley Urban, the Bromley Rural and the Beckenham districts respectively; and it was also evident on referring to the weekly returns of Infectious Diseases sent out by the Local Government Board.

Scarlet fever was unduly prevalent in the district in the latter end of 1896, but in the early part of 1897 it broke out so badly that in January 42 cases were reported. In February the numbers were not far short of this and in consequence as a precautionary measure, it was decided to close all the public elementary schools, the Havelock Road especially suffered but the outbreak was not limited to it as cases were reported from all over the district. Two houses in the Havelock Road within a few days contributed 7 and 6 cases respectively—There were 5 cases in a house in the Southborough Road, and 6 in a small house in the middle of the town. Just at this time the

special incidence of the disease in certain families was a distinctive feature of the epidemic and an interesting fact was ascertained both with regard to the above mentioned houses and also with regard to some others. Knowing the risk of early infection the cases were removed as rapidly as they occurred, but notwithstanding this precaution Scarlet Fever spread in such a manner as to arouse suspicion that the original source of the disease was still at work. In all these cases there was strong reason to believe that the infection originated from a member of the family who had had the disease so mildly that the rash, if it were ever present, was not noticed, although the throat and tongue were affected. There was moreover in these cases no constitutional disturbance, and there was no desquamation afterwards. It can be understood that such cases were easily overlooked at first, but experience of them later on enabled us to discover similar cases and to prevent their causing recurrences. Every year one or two instances of this occur and I specially remarked upon it 4 or 5 years ago in one of my annual reports. It shows the necessity in any case of Scarlet Fever, of examining carefully the other members of the family, especial attention being given to the condition of the throat, nose and tongue. Of late years the tendency of medical men has been to attach more importance to this point, and less to the desquamation which at one time was looked upon as almost the sole cause of infection.

In March and April there was a decided drop in the number of cases, and in the following months the number fell rather below the average.

In October there was another outbreak, which was practically limited to New Bromley and Farwig, and was quite

epidemic in character, 44 cases occurring in this month. I made a special enquiry into all the particulars of this outbreak. I found that half the cases occurred from the 9th to 15th inclusive. In the 40 cases which occurred in this area I ascertained that the school attendances were as follows :—

Lady Farquhar's schools 8 children.

Wharton Road	„	5	„
Bromley National	„	5	„
Plaistow	„	12	„
No School		10	„

the cases occurring from the 9th to 15th were divided pretty equally among these schools. Of the 12 at Plaistow no less than 8 occurred in children of the second standard, and it was thought that a certain boy who sat in this standard and who had recently had Scarlet Fever must have infected the others but this was proved to be incorrect by showing that 6 of the cases occurred before he returned and the 2 others contracted the disease at a date which precluded the possibility of his being the source of it.

Of the 10 who attended no school only 3 occurred in households already known to be infected.

Careful enquiry on the point negatived the theory that the epidemic was due to Milk or Butter supply or to infection by linen, and to put it shortly the cause of the outbreak was never discovered. That there was more than one source appears probable from a comparison of the dates at which the cases appeared in the different schools.

The areas specially attacked were the Havelock Road, New Bromley, Farwig, Park End, Nichol Lane, Simpson's and Hawksworth Roads.

The parts especially free were Widmore, Homesdale Road, the whole of the Bromley Common district (excepting Havelock Road,) and Shortlands.

It is to be noticed that Scarlet Fever was confined almost exclusively to the poorer portion of the population, the occupants of the middle and best class property, almost entirely escaping.

With regard to the cases nursed at home, it is not necessary to say much. It is very difficult to carry out complete isolation, and this is shown by the fact that in 33 cases nursed at home there was a recurrence in 5 houses. In four of these single cases recurred, and in one, three cases recurred at irregular intervals.

With regard to the cases removed to the Infectious Hospital I propose to classify them.

1. Cases occurring in the houses within a week after the removal of the first patient. These are probably due to infection from the first case or from a source common to both. There were several of these, although every means was taken to avoid infection spreading, by prompt isolation and removal.

2. Cases occurring after the first week and before the return of the patient from Hospital. It should be noted that the detention in the Hospital was generally 9 and was never less than 8 weeks.

These cases occurred in no fewer than 8 instances and the intervals of time which elapsed after the removal of the patients, were respectively 10, 13, 14, 32, 43, 51, 51, and 53 days. They must have been due either to faulty disinfection, to infection from some outside source, or to infection from some

one in the household whose infectious condition must have been overlooked. As a matter of fact in three of these "secondary" cases there was fair reason to believe that the last of these conditions existed. Whatever the cause may have been it is worth recording that these cases occurred as they have a bearing upon the next class.

3. Cases occurring within a few days or weeks after the return of a patient from the Infectious Hospital. Some of these would undoubtedly be termed "return cases," the usual supposition being that in some way or another infection is brought back to the household by the child on its discharge from hospital.

There were 7 of such cases and the intervals respectively were 7, 7, 13, 18, 32, 34 and 38 days.

Most authorities would probably eliminate the last three cases as the interval which elapsed would be considered too great to justify the supposition. At any rate we are left with four cases which might reasonably be suspected as "return" cases.

I visited the infected houses and in two cases found no trace of desquamation, but an unhealthy condition of the nostrils existed, which I was informed was not present at the time of discharge from hospital, but came on after an interval of a few days and this may possibly have been the cause of infection. In the two other cases, no abnormality whatever could be found; in one of them the patient had been away from home altogether over 10 weeks, the last five of these being spent at the "Mary Wardell" Convalescent Home. A week after her return, her sister fell ill.

In past reports I have given reasons for my belief, that a diseased condition of the nose, throat, or ear may be a source of infection for weeks after all desquamation has ceased, even although such a condition may appear after a period of apparent freedom from infection, but I wish to emphasize that in the cases mentioned when no such lesion could be found, and no desquamation (although I attach little importance to *late* desquamation), there was not sufficient justification to term the subsequent cases, "return" cases, inasmuch as for every case of Scarlet Fever in a household, occurring within a month *after* the return of the patient I can show in Class 2, two cases in other households which appeared *before* the return.

I should especially mention one instance occurring last year. A patient was to have been discharged on a certain date ; for some reason he was delayed for a week ; in the meantime, four days after the date first decided upon, a case of Scarlet Fever occurred in the very house to which the patient was to have gone. Now if this had occurred *after* instead of *before* the discharge of the first patient, the second case would most assuredly have been put down as one of these "return" cases.

I have kept a careful record of the cases in last year's epidemic, and owing to the exceptional opportunity which we have had of studying these cases, I have given them special attention owing to the strong feeling which has been expressed by some, that for several years we have had an undue number of "return" cases in the districts which jointly make use of the Infectious Hospital.

Granted that our experience of last year may have been exceptional, I still think there is sufficient evidence to make

one very careful in ascribing all of these secondary cases to re-infection.

Unfortunately, there are at present no means of ascertaining definitely by bacteriological tests, when a patient ceases to be infectious, and consequently we have to rely entirely on clinical examination.

Every precaution is taken by Dr. Shannon that no patient shall be discharged, who has any evidence of the disease in the form of desquamation, or any unhealthy condition of the nose, throat, or ear. After convalescence, during the last week of his stay in hospital, the patient passes a period of probation in a block which is specially set apart, for the purpose of freeing him from any trace of infection which may be hanging about him ; and on his discharge the parents are requested to keep him for the first fortnight, away from the other children, and to see that he has a separate sleeping room.

A leading authority on Scarlet Fever, makes the following remark :—

“ A certain proportion of the cases discharged from a fever hospital, perhaps two or three per cent, seem to communicate the disease to other members of their households on their return, in spite of the most scrupulous care in their final disinfection. It is possible that the respiratory tract may remain charged with infection for several days after a person has ceased living in an infected atmosphere, and as we are unfortunately, unable to make sure of thoroughly disinfecting the air passages of a living person, it is wise to warn the patient against the possible risk of a too free intercourse with

other members of his family, for several days at least, after his return home. In spite of every precaution, these so-called "return" cases will occasionally appear."

I believe that we have still much to learn about the mode of infection in Scarlet Fever, and certainly these epidemics have shown us the extreme difficulty there is in tracing the disease to its source.

As the popular idea is erroneous, I should like to add that the disease is not spread to any distance by ærial convection, this being proved by the negative evidence derived without exception, from certain large fever hospitals whose walls are surrounded by small tenements, for the most part crowded with young children.

4. There is a fourth class of cases occurring some months after the return of the patient from Hospital. These cases occurred at intervals of $4\frac{1}{2}$, 5, $5\frac{1}{2}$ weeks, and $5\frac{1}{2}$, 6, 6, $7\frac{1}{2}$, 10 and 12 months, in last year.

It is interesting to note that extending our observations over several years, in times when Scarlet Fever has not been epidemic, it is found that some families seem to be attacked at intervals of one or two years, much out of proportion to the other inhabitants. Whether this is due to family susceptibility, or to infection hanging about the house, it is difficult to say.

Taking into consideration the number of cases in which Scarlet Fever appeared again in households after disinfection, I am not at all satisfied that our present method of disinfection of dwellings by Sulphur, is good, and this doubt is strengthened by some experiments on this subject which have lately been carried out. I am looking about for a more trustworthy agent, and hope shortly to be able to recommend one for use.

For the disinfection of clothing and bedding we have in our steam disinfecter a very reliable apparatus.

DIPHTHERIA.

During the year 19 cases of Diphtheria were reported, of these, three only were removed to the Infectious Hospital, the others being isolated and treated at home. The 19 cases occurred in 14 houses, 4 were in children under 5 years of age, 12 were in children over that age, and 3 were in adults.

The cases were fairly evenly distributed throughout the year as regards time of occurrence and were scattered over the district, being sporadic in character ; 9 of the cases occurred in 4 houses widely separated from one another and the other 10 were single cases. There were 5 deaths giving a case mortality of 26 per cent. I have no record of the number of cases in which a bacteriological examination was made, or the Antitoxin treatment was adopted. It is hardly fair to judge from such a small number of cases, but the mortality was undoubtedly higher than is usual in cases treated at an early stage by Antitoxin.

The Council have adopted the recommendation of the Sanitary Committee who with a view of assisting the Medical Practitioners in their diagnosis, and being of opinion that it would be advisable in cases of suspicious throat illness that a bacteriological examination should be made, recommend that the Medical Practitioners of the District should be informed that such an examination will in all cases be made free of charge, and that the Sanitary Inspector be authorised to take the necessary steps for such examinations to be made by the Clinical Research Association.

DIARRHŒA.

There were 17 deaths from this disease during the year ; all but three occurred in infants under a year old—15 of them were registered in the third quarter—this was above the average for the last 9 years. The increase was probably due to the hot and dry weather which prevailed in July and in the first half of August. All these deaths occurred among the children of the poor and almost all of them were among bottle fed babies, and it is a great pity that there exists no means of bringing to the notice of the parents the fact that these deaths are due to preventible causes, and are a consequence of want of knowledge and want of care.

Heat and drought are favourable to fermentative changes, the milk becomes contaminated and the most fatal form of Diarrhœa and sickness is set up. The essentials to prevent these are cleanliness and the boiling of the food as a whole, for it is of little use to boil the milk if there is want of care with regard to the water and the other materials added to it. A thoroughly scoured bottle, with carefully cleansed tube and teat, and food freshly cooked would have prevented the Diarrhœa in most if not all of these cases. It is not unusual in the hot summer months to see a child sucking sour milk from a half cleansed bottle, and considering the carelessness of some mothers it is a matter for surprise that more deaths from Diarrhœa do not occur. District visitors and others brought into contact with the poor might make a note of this.

RAINFALL.

I am indebted to Mr. James Batten, J.P., of The High Field, Bickley, for the following particulars of the local rainfall.

	Inches.		Inches.
January ..	1·90	July ...	0·80
February ...	2·00	August ..	2·90
March ...	3·83	September	2·79
April ...	1·03	October ...	·37
May ...	1·55	November	1·08
June ...	3·53	December	2·74

Total local rainfall ... 24·52 inches.

Total Greenwich rainfall ... 22·14 inches.

It is interesting to note that we have a rather heavier rainfall here than they have at Greenwich, the average for the last six years being 2·58 inches more than that of Greenwich.

WATER SUPPLY.

After many years of asking there seems at last a chance of our obtaining a constant supply of water throughout Bromley. Hitherto a considerable portion of the District has been supplied on the intermittent system, but the Kent Company consequent on frequent representations made to them have decided to systematically carry out the change.

I fear that we shall have many years to wait for another reform which is greatly needed, viz.: the softening of the water. Its hardness makes it so unsuitable for washing purposes, and the waste of soda and soap must be so considerable that I am surprised that some of the large laundry owners have not fitted up on their own premises an apparatus for softening the water.

During last Autumn there was a scare that Bromley might at some time suffer as Maidstone had done from a contaminated water supply, but a consideration of the sources of supply in the two places would show how utterly different they are in their character and how little we have to fear on this score.

Our supply comes up through the chalk at a great depth and is splendidly filtered in the process and the only risk of pollution is in its distribution. At Maidstone there is little doubt the water was contaminated at its source, and as this was comparatively superficial and open there must always have been a liability to this risk.

MILK SUPPLY.

In all cases of infectious disease the possibility of the diffusion of disease by milk was borne in mind and enquiries were always made on this point but with negative results.

SANITARY WORK.

During the year all the Sanitary Bye-laws have been revised, and the bye-law with respect to houses let in lodgings or occupied by members of more than one family was repealed as it was considered not to be applicable to this district.

Dust removal is carried out once a week, but in the summer months arrangements are made by which there is a bi-weekly collection of refuse in some of the poorer parts of the town. There have been very few complaints of non-removal.

The question of the disposal of house refuse again came before the Council. It may be remembered that many of the members are strongly in favour of doing away with our present system and substituting in its place the destruction of the

house refuse by fire. Plans and estimates were drawn out and everything was satisfactorily arranged, but owing to the opposition which was met with from some of the members of the Council and from a section of the public it was decided to leave the matter in abeyance for a time. The grounds upon which the measure was opposed seemed to be that the step was premature, that a refuse destructor would be more or less of a nuisance, that it would be a greater expense, and that we should still have trouble in the same spot owing to the importation of house refuse from other districts to enable the brickmakers to continue their work.

The fact remains that in other districts the plan has been adopted and in the majority of instances has been found to work well.

Sewer smells were complained of in the Blyth Road and Park Grove. Ventilating shafts were erected in the Raglan Road and in the Blyth Road. Considerable trouble has been experienced in obtaining permission from householders to allow ventilating shafts to be carried up the sides of houses. In cases when it has been refused, either the road ventilators must be left open, or a ventilating column must be erected on the pathway; in the latter case a nuisance may arise from the effluvia finding their way into the upper windows of the adjacent houses.

It was proposed to erect a public urinal in front of the New Post Office, but this was opposed and it was eventually decided to erect an underground urinal with closet accommodation on the site of the present one outside the Police Station. Conveniences are also badly needed in other parts of the town.

A petition signed by 387 ratepayers was presented to the Council, asking for the removal of the Mortuary from its present position. An attempt was made to comply with this, but it had to be given up owing to its being found that there was no other site eligible.

The house-to-house inspection of the small class property in the district was proceeded with. Wharton Road, Hawkesworth Road, Freelands Grove, Gravel Pits, London Road, Nightingale Lane, Pembroke Road, Walpole Road, Union Road, Cowper Road, Homesdale Road, Great Elms Road, Church Road, Wellington Road, Marlborough Road, Freelands Road and Havelock Road were inspected, and notices were served upon the landlords to have the sanitary defects remedied.

House accommodation. As ascertained from the building register, there were 85 new buildings and 82 additions during the past year.

A large proportion of the plans passing through the Surveyor's Office have reference to the re-drainage of houses built some years ago under the old régime. As the bye-laws are now strictly enforced and the drains are subjected to a severe test under the supervision of the Surveyor, it is clear that the house drainage of the district must be steadily improving.

The sewerage of the town is in a very satisfactory condition.

For the purpose of giving a general idea of the class of house property in Bromley, I hope in a future report to show a classified return of the rateable values of dwelling houses in

the district, but as this involves a considerable amount of labour, I have not been able to obtain it in time for this report. It must be obvious that the social status of the inhabitants as shown by their means and occupations must be considered as a very important factor in forming a fair estimate of the sanitary condition of any given district.

The only figures bearing on this point that I have been able so far to obtain are those of the house-to-house inspections, which appear to show that there are approximately at the present time about 1,900 houses rated at under £20 per annum in a total of rather less than 5,000 houses.

The report of your Inspector, Mr. Matthew Bates, is appended, giving in detail the sanitary work carried out.

I am, Gentlemen,

Your obedient servant,

ARTHUR F. G. CODD,

M.B., F.R.C.S., SAN. SCI. CERT.,

Medical Officer of Health.

Annual Report of Sanitary Inspector.

Summary of Sanitary Work &c., carried out in the Urban District of Bromley, Kent, during the year ended December 31st, 1897.

SANITARY WORK.

(Other than that included in House to House Inspection).

Tenement Houses and premises visited	492
House-refuse Receptacles provided to Houses	14
House Drains tested	77
Defective Drainage relaid in part	28
„ „ „ throughout	30
New Pans and Traps provided to closets	42
Water Cisterns repaired and cleansed	3
Ventilation Shafts repaired &c., and drains ventilated...	47
Manure Receptacles provided	6
Water supply to closets reinstated	23
Defective House Drains unstopped, and repaired, &c.	83
Insanitary Premises, cleansed and repaired	27
Water Supply to Houses reinstated	3
Scullery Sink and Bath waste disconnected from drains	11
Houses declared unfit for Human Habitation	7

Proceedings were ordered to be taken in two instances, but the service of the summons was obviated in each instance by the owner putting the work in hand, and complying with the Council's requirements.

Four hundred and ninety-two Houses were visited and inspected, under this head during the year, as compared with 354 in the previous year.

PERIODICAL INSPECTION.

The Slaughter Houses, Dairies, and Bakehouses, have been visited at frequent intervals, special attention being paid to the slaughter houses being frequently lime-washed, with very few exceptions the Dairies and Bakehouses were found to be in a satisfactory condition at each inspection. They were all lime-washed at the stated periods, and at other times when found necessary. Two applications were made for renewal of slaughter house licenses, which were granted.

Two applications were received during the year for registration under the Dairies and Cowsheds order in respect of new premises, viz. :

Lower Camden.

4, Promenade, London Road.

They were found to be in a very satisfactory condition, and the applications were granted.

Two Dairies have been closed during the year.

There are in the District :

Slaughter houses	...	10
Bakehouses	...	17
Dairies and Cowsheds		33

The Market has been regularly inspected, on two occasions some fruit, viz. :

1. 40 Boxes of Strawberries,
2. 8 Boxes of Pears,

were destroyed as being unfit for food.

Samples of butter, &c., were taken from time to time and submitted to the Public Analyst and were certified to be pure.

INFECTIOUS DISEASES.

Two hundred and thirtyone cases of infectious diseases have been reported during the past year as compared with 102 cases in 1896.

The 231 cases occurred in 164 houses, 166 cases were removed to the Infectious Hospital, the remaining 65 cases were treated in their own homes, being properly isolated for that purpose.

One case occurred amongst the staff at the Infectious Hospital, which is situate in this district.

The greatest proportion of the cases were of Scarlet Fever.

The number of cases of Typhoid is very satisfactory, only 3 cases being reported during the whole year. Particular attention was paid to the disinfection of drains, &c., when these cases occurred the sewer and drains being flushed with perchloride of mercury 2 or 3 times a week, for some weeks.

The number of cases of each disease as compared with 1895 and 1896 is as follows.—

		1895.	1896.	1897.
Diphtheria ...	...	9	11	19
Scarlet Fever ...	...	40	60	192
Erysipelas ...	...	19	20	14
Puerperal Septicaemia		2	2	3
Enteric Fever ...	...	6	9	3

The number of cases in each quarter compared with 1896.—

	1st quarter,	2nd quarter,	3rd quarter,	4th quarter,	Total.
1896	15	21	20	46	102
1897	104	32	19	76	231
The number of rooms disinfected, cleansed &c.					208
The number of articles treated in disinfector					2,441

The premises and drains were carefully examined where the cases of Typhoid occurred.

The first case, the patient who had been in poor health for some time, had been working on a building outside this district, where close to, an old pond which had been receiving the drainage from cowsheds for some years, had just been emptied, and several feet of offensive black sewage excavated, the smell from which was so offensive as to cause him to leave off work and go home, and was unable to resume his work. In the other 2 cases no local cause could be found. In one house where 3 cases of Diphtheria occurred, serious defects were found in the drains, and water cistern was in a very foul condition.

In January and February an epidemic of Scarlet Fever occurred and the schools were closed.

In October another outbreak occurred in the New Bromley and Farwig portions of the district, the schools in these districts were closed and every room thoroughly disinfected, floors, desks &c., scrubbed with disinfectants, and all the slates immersed for some hours in a strong solution of Carbolic Acid and afterwards thoroughly washed. If possible I think it would be very advisable for the slates to be so treated at frequent intervals, as it is believed that slates are a means of conveying infection.

FOOD AND DRUGS ACTS.

During the year 46 samples of food were taken from the various tradesmen and submitted to the Public Analyst for analysis, viz. :

Milk	17	Rum	2	Flour	2
Butter	12	Gin	1	Bread	2
Coffee	4	Whisky	1	Pepper	2
	Arrowroot	1	Lard	2	

In one instance proceedings were taken under the Margarine Act, but as there was conflicting evidence as to whether the bulk was properly labelled, the Magistrates dismissed the summons, but without costs.

In the early part of the year some of the samples of milk were certified to be of very poor quality and evidently slightly adulterated, but owing to the low standard adopted, proceedings were not advised. Each vendor's attention was called to the Analyst's report. During the latter half of the year the samples have been much improved in quality, the Analyst stating that several were of excellent quality.

Some of the samples of butter were of inferior quality, adulterated with a small per centage of foreign fat, but not sufficient to sustain a prosecution, having regard to the standard adopted by Somerset House.

Samples of milk were taken in the course of delivery and on each occasion certified to be pure.

In October I seized a quantity of meat from a butcher's shop in the district, as unfit for human food, and took the necessary proceedings, when the butcher was convicted and fined £4 and costs.

PETROLEUM ACTS.

Samples have been taken from time to time, and inspection made of premises of those licensed to store petroleum, which were on all occasions found to be satisfactory. Samples were also taken from itinerant vendors of oils, and tested as to the flashing point, but none were found to flash below the legal limit.

Number of applications for renewal of licenses ...	9
Number of licenses renewed	9

FACTORY & WORKSHOPS ACT.

The workshops have been inspected at frequent intervals, and also the laundries, as to their sanitary condition.

On two occasions I found overcrowding existed, which was immediately abated.

Two workshops were inefficiently ventilated, and this was remedied in each case.

One workshop had not sufficient closet accommodation and was closed.

Five notices were received in accordance with Sec. 26., Sub-Sec. 2., Factory and Workshops Act, 1891 and Sec. 41., 1895, viz.: commencement to use certain premises as a workshop, these were inspected and particulars entered on the Register, in one instance the sanitary arrangements were unsatisfactory and the room overcrowded, these were attended to before the workshop was allowed to be used.

OTHER NUISANCES.

Accumulation of trade refuse and manure	38
Animals kept uncleanly	15
Overcrowded premises (cases abated)	6

Removal of house refuse (complaints attended to) ...	11
Insanitary ditches and ponds cleansed	6

It was not found necessary to take legal proceedings to abate any of the above.

Complaints were made of offensive smells from the sewer in Park Grove. Careful examination and enquiry was made. The sewer in this road has sealed manhole covers, so that the smell could not arise from the sewer. One or two very offensive air inlets on the ground level were found to be offensive, and undoubtedly caused part of smell complained of. But the nuisance was stated to be worse at night-time, and from my own observations and that of others, the smell emanated from the gas works and brick fields.

In all other cases where complaints of sewer smells were justified, on reporting the matter to the Sanitary Committee immediate steps were always taken to abate the nuisance.

HOUSE TO HOUSE INSPECTION.

The number of houses inspected during the year was 301, a somewhat less number than the previous year. This was due to the extra work in connection with the outbreak of scarlet fever for two months at the beginning of the year, and again two months in the latter part of the year, necessitating during that time the suspension of the work on account of the extra work of removing patients and disinfection of premises. Also great difficulty was experienced in two or three batches of inspections in getting the work put in hand; thus about 100 houses were visited three or four times, each to no purpose, this covering a space of five weeks, until final seven days' notices and threats of proceedings were served, when the work was proceeded with.

Of the number inspected the drains were entirely re-laid and re-constructed in 28 of them, whilst 87 branch drains were re-laid or rendered sound.

Defective ventilation of drains was again met with in several houses or was non-existent, viz. 46.

The closets were in an insanitary condition, in 53 due to improper flushing apparatus, no water supply, or flushed direct from drinking water cistern.

The commonest defect was want of proper receptacles for house refuse. These were provided in 104 houses.

In 12 houses dangerous dilapidations as decayed floors, stairs, ceilings, &c. were found and remedied.

The majority of the houses inspected had a constant water supply, so that in 11 instances only were cisterns found in an insanitary condition or uncovered.

In 78 houses rooms were found to be insanitary from dirty and damp condition of walls, &c., due to defective roofing, guttering, and tenants neglect and uncleanness; in these instances the walls were cleansed and papered, and ceilings limewashed.

Roof and waste water pipes connected direct to the drains and acting as ventilators, and close to windows of living and sleeping rooms and hence a danger to health, were found in 42 houses; these were disconnected and made to discharge over trapped gullies.

In 78 instances defective closet pans and traps were renewed.

I am pleased to state that the whole of the work under this inspection during this year was carried out without resorting to legal proceedings, although in several instances great difficulty was experienced in getting the work put in hand. The premises being in a large number of cases visited several times before the work was completed. In all cases when the Council threatened proceedings the work was immediately proceeded with.

I append a summary of the foregoing inspection.

SUMMARY.

No of Houses inspected	301
„ Notices served	247
„ Notices served in 1896, complied with in 1897	18
„ House drains relaid in entirety	28
„ „ „ „ partially	87
„ Ventilating shafts to house drains repaired, etc.	46
„ Flushing apparatus provided	53
„ Sanitary dust receptacles provided	104
„ „ „ „ repaired	16
„ Dangerous dilapidations remedied	16
„ Water cistern repaired	11
„ Damp walls, ceilings, etc., cleansed etc., ...	54
„ Insanitary dwelling houses cleansed	24
„ Roof or waste water pipes disconnected from drains	42

No. of W.C's, and traps repaired or renewed ...	...	78
„ Drains unstopped ...	...	11
„ Nuisances from keeping animals abated ...	...	4

I am, Gentlemen,

Your obedient servant,

MATTHEW BATES,

Sanitary Inspector.

To the Chairman and Members of the

Urban District Council, Bromley, Kent.

March, 1898.